

REMARKS

The claims in the application are 1-12 and Claims 13-16 added by the present Amendment.

Favorable reconsideration of the application as amended is respectfully requested.

Independent Claim 1 has been amended to recite the connection thread 2 interconnecting the upper ground structure 1 and lower ground structure 1 as shown in Fig. 1 (reference is being made to preferred embodiments of the present invention illustrated in the drawings of the present application) and the conductive metal layer is constituted by subjecting the three dimensionally knitted base material to an electroless plating with at least one conductive metal as described, e.g., at page 15, lines 1-11 of the present application and in Examples 1-3.

Additionally, Claims 13-16 introduced herein find support on pages 12-13 of the specification and in Fig. 2. Accordingly, the Amendment to the claims herein finds clear support throughout the present application and drawings. Therefore, the only outstanding issue is the art rejection of the claims.

Claims 1-5 and 7-12 have now been rejected under 35 U.S.C. §103 as being obvious over JP 02082696 to Oike et al. in view of U.S. Pat. No. 5,589,245 to Roell in paragraph 6 of the Office Action, while Claim 6 has also been rejected additionally in view of U.S. Pat. No. 5,532,052 to Eng et al in paragraph 7 of the Office Action.

Another copy of the verified English translation of the priority Japanese application submitted with the previous Amendment filed June 5, 2003, is enclosed herewith in accordance with the request in paragraph 1 of the Office Action, to eliminate Motogami et al. as a reference.

Furthermore, it is respectfully submitted that the invention recited in all claims pending herein is patentable over the cited art, for the following reasons.

As pointed out above, the present invention is directed to a three-dimensional knitted base material forming a fibrous structure base in electromagnetic wave shielding material and composed of upper and lower ground structures interconnected by thread. A conductive metal layer on the shielding material is formed by an electroless plating the knitted material. The claimed invention provides the processing improvements described in the background portion of the present application and explicitly documented in the comparative testing presented in Table 1 on page 24. In particular, separation of coating metal is suppressed while cutting debris generated during manufacture is reduced. Shielding improves while compressive stress is reduced.

The features of the presently claimed invention together with the accompanying advantages attained thereby are not taught or suggested by the applied art for the following reasons.

As acknowledged in paragraph 6 of the Office Action, Oike et al. teach a metal thin film laminate structure for electromagnetic wave shield. The Examiner acknowledges Oike et al. fail to teach that the knit base is three-dimensional. In contrast, in the present invention, the claimed fabric is not a laminate.

In fact, as shown in Figures 1-3 of Oike et al., it is essential to have a non-conductive base layer in the final product as a core layer and conductive metal layers on the respective surfaces of the core layer. The core layer of the Oike et al product is not conductive and the conductivity is exhibited in the horizontal directions only. Contrary thereto, the product of the present invention exhibits conductivity in all directions (360°), quite effective as an

electromagnetic wave shielding gasket. The product of the present invention forms a conductive knit.

Furthermore, Oike et al. do not disclose electroless plating. Roell contains no suggestion about metal plating any of his layers. It is respectfully reiterated, Oike et al. form two independent metal layers 2 on both surfaces of a non-conductive base material 1. Thus, Oike et al. neither disclose nor suggest a three-dimensionally knitted base material composed of an upper ground structure, a lower ground structure and interconnecting conductive thread.

In this regard, a Declaration under 37 C.F.R. §1.132 from joint inventor Shigekazu Orita is enclosed. The features and advantages of the claimed material are set forth in paragraphs 3-6 of his Declaration. It is pointed out in paragraph 8 of his Declaration, Oike et al. just teach a laminate having two independent metal layers 2 on both surfaces of a non-conductive base material 1, unlike the claimed invention. Furthermore, as noted by Mr. Orita, Roell contains no suggestion of metal plating any of his layers.

As Mr. Orita points out, in paragraph 9 of his Declaration, even if he considers Oike et al. and Roell together, then such a combined teaching would suggest, at most, preparing a knit fabric having a nonconductive core layer, the exact opposite of the claimed invention. It is even stated by Mr. Orita in paragraph 9 the plating technique taught in Orita et al. would not result in conductivity within a knit fabric.


Eng et al. add nothing to the teachings of Orita et al. and/or Roell which would render obvious the invention recited in any claim. The remaining art of record has not been applied against the claims and will not be commented upon further.

Accordingly, in view of the forgoing amendment, accompanying remarks and enclosed Declaration, it is respectfully submitted all claims presented herein are in condition for

allowance. Please contact the undersigned attorney should the Examiner have any questions. A petition for an automatic two-month extension of time under 37 C.F.R. §1.136(a) is enclosed in triplicate together with the requisite petition fee.

Early favorable action is earnestly solicited.

Respectfully submitted,


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